

REMARKS

Upon entry of the present amendment, claims 1-2 and 6-10 will remain pending in the above-identified application and stand ready for further action on the merits. Claims 1 and 10 have been amended. Claim 5 has been cancelled. No new matter is introduced into the Application as originally filed by way of the instant amendment to the claims.

Rejections under 35 USC §§ 102(b) or § 102(b)/103(a)

Claims 1-2, 5-6 and 10 stand rejected under 35 USC § 102(b) as being anticipated by **Uno et al.** (EP 1 202 122).

Claims 1-2 and 5-10 stand rejected under 35 USC § 102(b) as anticipated by or, in the alternative, under 35 USC § 103(a) as obvious over **Kajimaru et al.** (US 2002/0061959 – now US Patent 6,818,699).

Reconsideration and withdraw of each of the above rejections is respectfully requested based on the following arguments and considerations.

Legal Standard for Determining Anticipation

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art.” *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001) “The identical invention must be shown in as complete detail as is contained in the ...

claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Legal Standard for Determining Prima Facie Obviousness

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

“There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art.” *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.).

“In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be

sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification.” *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. “The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art.” *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The Supreme Court of the United States has recently held that the teaching, suggestion, motivation test is a valid test for obviousness, but one which cannot be too rigidly applied. See *KSR Int'l Co. v Teleflex Inc.*, 127 SCt 1727, 82 USPQ2d 1385 (U.S. 2007). The Supreme Court in *KSR Int'l Co. v. Teleflex, Inc., ibid.*, reaffirmed the Graham factors in the determination of obviousness under 35 U.S.C. § 103(a). The four factual inquiries under Graham are:

- (a) determining the scope and contents of the prior art;
- (b) ascertaining the differences between the prior art and the claims in issue;
- (c) resolving the level of ordinary skill in the pertinent art; and

(d) evaluating evidence of secondary consideration.

Graham v. John Deere, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (U.S. 1966).

The Court in *KSR Int'l Co. v. Teleflex, Inc.*, *supra*, did not totally reject the use of "teaching, suggestion, or motivation" as a factor in the obviousness analysis. Rather, the Court recognized that a showing of "teaching, suggestion, or motivation" to combine the prior art to meet the claimed subject matter could provide a helpful insight in determining whether the claimed subject matter is obvious under 35 U.S.C. § 103(a).

Even so, the Court in *KSR Int'l Co. v. Teleflex, Inc.*, *ibid.*, rejected a rigid application of the "teaching, suggestion, or motivation" (TSM) test, which required a showing of some teaching, suggestion, or motivation in the prior art that would lead one of ordinary skill in the art to combine the prior art elements in the manner claimed in the application or patent before holding the claimed subject matter to be obvious.

Further, the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336, quoted with approval in *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007).

Distinctions Over Uno et al.

Applicants note that the polyester resin (A) has a trimellitic acid component or a trimellitic anhydride component at the end of polyester chain because polyester is decomposed by trimellitic acid and trimellitic anhydride.

The polyester resin of Uno et al. has a hydroxyl group at a terminal and performs the ring opening reaction of an acid anhydride having a C4-20 alkyl group or a C4-20 alkenyl group at the end of polyester chain (*see [0021]*).

Accordingly, the polyester resin of Uno et al. has an acid anhydride having a C4-20 alkyl group or a C4-20 alkenyl group at the end of polyester chain.

Trimellitic acid in Uno et al. is used as an acid component constituting a main chain of polyester (*see [0027]*), not existing at the end of the polyester chain. The end component of polyester chain of Uno et al. is the one derived from the acid anhydride having a C4-20 alkyl group or a C4-20 alkenyl group as above mentioned.

For the first time when the polyester having such a structure as above mentioned and having an acid value of 2 mg KOH/g or more and less than 7.9 mg KOH/g and a number-average molecular weight of 1,1000 to 18,300 is contained as specified in Claim 1 of the present invention, effects of the present invention can be obtained.

Uno et al. uses the polyesters having an acid value of 5.5 to 11.4 mgKOH/g in Comparative Examples (Comparative Example 1: AV=8.5, Comparative Example 2: AV=5.5, Comparative Example 3: AV=7.2, Comparative Example 5: AV=11.4, Comparative Example 6: AV=11.4). In the Examples, the polyester resin having an acid value of 13 mgKOH/g or more are used by Uno et al. (Example 1: AV=13.9, Example 2: AV=13.9, Example 3: AV=13.4,

Example 4: AV=17.7). Uno et al. describes that “the acid value is preferably within a range from 5 to 100 mgKOH/g.” However, the person skilled in the art would never be motivated to use polyesters having such a low acid value as 5.5 to 11.4 mgKOH/g as used in Comparative Examples.

Accordingly, based on the above considerations, it is clear that the cited art reference of Uno et al. is incapable of either anticipating or rendering obvious the instant invention as recited in pending claims 1-2 and 6-10, since it fails to provide for each of the limitations as recited in the pending claims, and provides no disclosure that would provide a person skilled in the art with a reason to arrive at the instant invention as claimed.

Distinctions Over Kajimaru et al.

The Examiner states that Kajimaru et al. also discloses that acid value can be less than 8 mgKOH/g.

However, Kajimaru et al. discloses that “if the acid value is lower than 8 mg KOH/g, the polyester resin becomes difficult to be dispersed in an aqueous medium and an even aqueous dispersion is made difficult to obtain and consequently, the aqueous dispersion tends to be deteriorated in a storage stability” (see lines 10 to 14 at column 5 of Kajimaru et al.).

The person skilled in the art would never be motivated to use polyesters having such a low acid value as less than 8.0 mgKOH/g.

Further, the production method of polyester resin aqueous dispersion is different between Kajimaru et al. and the present invention.

In the present invention, the production method of the polyester resin aqueous dispersion is phase-inversion emulsification through 2 steps:

- (1) dissolving a polyester resin in an organic solvent, and
- (2) dispersing the solution of the polyester resin in the organic solvent together with a basic compound in water (phase-inversion emulsification) (see line 20, page 23 to line 6, page 24 of the present specification).

In Kajimaru et al., the production method of the polyester resin aqueous dispersion is so called “self-emulsification”) and is through 2 steps:

- (1) a step of producing an aqueous dispersion A with the organic solvent content of 0.5% by mass or higher at first by collectively adding polyester resin and a basic compound to an aqueous medium to make them aqueous, and
- (2) a step of removing the organic solvent from the aqueous dispersion A (see line 56 to line 65 in column 8).

Accordingly, based on the above considerations, it is clear that the cited art reference of Kajimaru et al. is incapable of either anticipating or rendering obvious the instant invention as recited in pending claims 1-2 and 6-10, since it fails to provide for each of the limitations as recited in the pending claims, and provides no disclosure that would provide a person skilled in the art with a reason to arrive at the instant invention as claimed.

Double Patenting

Claims 1-2 and 5-10 stand rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of **Kajimaru et al.** (US 6,818,699) in view of **Uno et al.** (EP 1 202 122).

Reconsideration and withdraw of this rejection is respectfully requested based on the following considerations.

As indicated in the remarks presented above, the disclosures of each of Uno et al. and Kajimaru et al. are incapable of either anticipating or rendering obvious the instant invention as recited in pending claims 1-2 and 6-10, since each of the cited art references fail to provide for each of the limitations as recited in the pending claims, and provide no disclosure that would provide a person skilled in the art with a reason to arrive at the instant invention as claimed.

Accordingly, based on such considerations, it is submitted that the instant invention is patentably distinct from the combined disclosures of the cited art references of Uno et al. and Kajimaru et al., thereby rendering the above obviousness-type double patenting moot. Withdraw of the same is therefore respectfully requested at present.

Any contentions of the USPTO to the contrary must be reconsidered at present.

CONCLUSION

Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance clearly indicating that each of pending claims 1-2 and 6-10 are allowed and patentable under the provisions of Title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Application No. 10/531,308
Amendment dated October 11, 2007
After Final Office Action of June 11, 2007

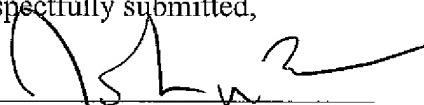
Docket No.: 0020-5368PUS1

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By


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